

2006 Virginia Spring Gobbler Season Survey

by

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Abstract: An annual survey of spring gobbler hunters in Virginia was conducted to monitor turkey population trends and hunter satisfactions. Cooperators ($n = 407$) reported data on 14,398 hours of hunting during 4,840 hunts in 91 Virginia counties. Cooperators heard and killed more gobblers in the 2006 season compared to 2005. Gobbling rates were slightly higher in counties east of the Blue Ridge Mountains (EBR) than west (WBR). Gobbling peaked during the first week of the season. Gobbling patterns were generally similar between areas EBR and WBR. Hunter success rates were higher in early April. Cooperators' opinions about the 2006 season were generally favorable with ratings of good (36%) or excellent (29%) reported. Cooperator opinions about the 2006 season were generally higher than recent years. Cooperators hunting on private lands heard more birds than those hunting on public lands. The number of hens flushed per hunt suggested peak nest incubation began during the week of April 17, 2006. Many hunters (34%) reported some type of interference during the season. Higher gobbling rates and cooperator success between 2005 and 2006 seasons suggest an increase in the turkey population. These results agree with the 20% increase seen in the 2006 spring gobbler harvest data reported at check stations and by phone.

Spring gobbler hunting in Virginia is a popular sport with over 73,000 hunters hunting nearly 315,000 days in 2004 (Jagnow and Steffen 2005). The number of spring gobbler hunters has increased nearly 70% since 1993 estimates of 43,005 hunters (Wright 1995). To gain better information on the status of Virginia's wild turkey population as well as information on characteristics, attitudes, and preferences of wild turkey hunters in Virginia, an annual spring gobbler survey has been conducted since 1987. Results from these surveys help evaluate wild turkey season length and bag limits, which

are the primary wildlife management tools used to effect desired population goals.

METHODS

The survey was a self-administered mail-back questionnaire distributed to Virginia residents who were members of the National Wild Turkey Federation and to previous survey respondents ($n = 345$). The 2-part survey requested information from daily hunts and opinions and other information (Appendix B).

The survey was distributed prior to the season. Cooperators were asked to record hunting information through the season and return their survey at the end of the season. Follow-up mailings were not attempted. In most cases, standard statistical methods were used to calculate means and standard errors (mean \pm SE). Standard errors for variables expressed on a per hour and per hunt basis (e.g., gobbling/hr, hens seen/hunt) were calculated using ratio-estimators (Cochran 1977). Means and standard errors were calculated by post-stratified methods for the following variables: hunters seen, hunts with interference, and dogs observed.

Because it was believed that daily variation in weather could have an effect on gobbling, the daily gobbling rates were calculated as 3-day moving averages. The moving average of gobblers heard per 100 hours of hunting (MG_t) on day t was calculated using:

$$\text{Moving Gobbling (MG)}_t = (G_{t-1} + G_t + G_{t+1}) / 3$$

where, G_t = ratio estimate of gobblers heard per 100 hours of hunting on day t . The moving average of gobblers killed per 100 hours of hunting (MK) was calculated with gobblers killed on day t using:

$$\text{Moving Kill (MK)}_t = (K_{t-1} + K_t + K_{t+1}) / 3$$

where, K_t = ratio estimate of gobblers killed per 100 hours of hunting on day t .

The 2006 regular season began on Saturday, April 8. The weekly time periods were considered Monday through Saturday. In addition to opening day, the weekly time periods were: Week 1, April 10–15; Week 2, April 17–22; Week 3, April 24–29; Week 4, May 1–6; and Week 5, May 8–13. Region boundaries were based on climatological and

physiographic characteristics.

During the survey history, cooperators noted that they frequently hunt with others and they suggested that we include data on the hunting success of their partners. Therefore, beginning in 1998, cooperators were asked to report information on their hunting partners' activities, specifically, if their partners killed a gobbler on one of their hunts.

RESULTS AND DISCUSSION

Hunter Statistics

Effort. – Questionnaires were received from 407 individuals and daily records were received from 429 individuals. Cooperators ($n = 407$) reported data on 14,398 hours of hunting during 4,840 hunts in 91 counties. As in previous years, cooperators averaged hunting about 12 days during the season although several cooperators hunted every day of the season. Hunters averaged hunting about 3.4 hours per day (Table 1). Little difference has been reported in the time hunters are afield each day among years of the survey. Hunts appeared to decline in length as the season progressed (Table 2). Cooperators scouted an average of 3.9 days prior to the season (Table 1).

Afternoon Hunting. – Cooperators took advantage of afternoon hunting during the last 2 weeks of the season with about 24% of hunts lasting until the afternoon hours. Some (10%) began hunting in the afternoons. Gobbling rates of those hunts that began in the afternoon in the last 2 weeks of the season were lower (0.12 gobblers heard/hr) than those that began before noon (0.43 gobblers/heard hr).

Lands Hunted. – About 91% of Virginia land is privately owned. Cooperators hunted primarily on land that was owned privately (81%) followed by federal (16%), and state (3%) owned land. The disproportionate use of public land (9% available vs. 19% used) suggested that publicly owned lands offer important opportunities for hunters in Virginia.

Decoys. – Decoys were used by 70% of cooperators in the 2006 survey (Table 1). Decoy use has not changed significantly in recent years (Table 1).

Hunter Success. – During the 2006 season cooperators heard and killed more birds per season than in 2005 (Table 3). Cooperators averaged harvesting 1.07 birds in the spring season, which is the highest rate observed in survey history (Table 3). Cooperators or their partners killed 6% of birds heard in 2006, which is comparable to the 7% rate in 2005. Approximately 30% of gobblers called-in were successfully harvested by cooperators or their partners (Table 4). Crippling losses were only 3.1% in 2006, this is the lowest crippling rate reported in the survey. Crippling losses have ranged from 3.1 to 7.9 percent during the survey (Table 4). Thirty yards appears to be an important range for hunters to recognize as birds shot within that range were generally killed whereas beyond 30 yards were more likely to be missed or crippled. The mean shotgun distance reported for kills was 28 yards while the average distance for birds that were missed was 31 yards (Table 4). Rifle hunters averaged killing birds at 84 yards.

Most birds (53%) were taken by 8:00 A. M. (Table 5). Only 2 percent of the harvest was taken between noon and sunset during the last 2 weeks of the season

Daily harvest rates (mk/100hr) peaked during early April (Fig. 1). Harvest rates appeared to increase later in the season, beginning about April 25-26. This late peak generally coincides with the time frame more hens were flushed off nests (Table 14) and may indicate that nest incubation was peaking and gobblers were more vulnerable to calling. The peak in nest flushes occurred slightly before the peak of harvest rates in 2006.

Cooperators reported the age distribution of gobblers harvested was: 11%, 1-year-old; 30%, 2-year-old; 45% 3-year-old; and 14%, 4-years and older (Table 6). Over the course of the survey the “jake” (1-year-old) kill has averaged 13% of the total spring kill. The range of “jake” harvest has been as low as 7% and as high as 22%. The 2006 “jake” kill was slightly lower than average and lower than 2005 (Table 6).

Most gobblers that were killed by cooperators were alone (48%) or were with other gobblers (25%). Some of the harvested gobblers were with hens (14%) while others (13%) were with both gobblers and hens.

The average weight reported by cooperators was 18.9 pounds. The heaviest bird reported weighed 25.2 pounds. We noticed a change in weight

Average spur length was 0.95 inches. Spur lengths tended to be longer during the first and last weeks of the season. Average spur length by week was: 0.99, 0.93, 0.91, 0.94, and 0.95 for weeks 1-5, respectively. This may reflect some increased vulnerability of older gobblers at the beginning and end of the season.

Overall cooperators' opinions about the 2006 season were better than 2005. Nearly a third of the cooperators (29%) rated the season excellent. This compares to 15% last year. Ratings of good (36%) were also higher in 2006

while the poor rating dropped to only 12% of cooperators (Table 7).

The 2006 season was the third season for the special youth spring gobbler hunt before the regular season. Approximately 15% of cooperators hunted with young hunters on the youth day. Some cooperators continued to help others during the season and guided either young (15%) or adult hunters (36%).

Other Species Seen. – Cooperators reported seeing a total of 62 bears or 1.3 bears per 100 hours of hunting on 2006. Last year cooperators saw about 0.7 bears per 100 hours of hunting, so there appears to be more bears seen by cooperators. Cooperators saw 126 coyotes or 2.2 coyotes per 100 hours of hunting in 2006. This also represents an increase over 2005 where 1.7 coyotes were seen per 100 hours of hunting.

Gobbling Statistics

State, Regional. – On a statewide basis, hunters heard 0.61 gobblers per hour (Table 8) and 2.07 gobblers per hunt in 2006 (Table 9). Compared to last year, the average number of gobblers heard per hour increased 20% and the average number of gobblers heard per hunt increased 22%. These statistics suggest an increase in the spring gobbler population, which is supported by a 20% increase in the statewide harvest reported at game check stations and by phone. Other research has shown that total harvest is a better indicator of population levels and that gobbling rates can be affected by a number of variables. Based on either index, harvest or gobbling, the turkey population appears to have increased significantly in 2006 compared to 2005. Good reproduction in 2004 appears to have boosted the turkey population after

relatively poor reproduction from 2001 through 2003. Unfortunately, reproduction in 2005 was below average so I expect little change in the turkey population in 2006 and little change in the 2007 spring gobbler kill.

For past 9 years the West Piedmont Region has had the highest gobbling rate per hour among regions. While the West Piedmont region again led the state in 2006 with 0.68 birds heard per hour, the Northern Region was a surprising second with 0.67 birds heard per hour. Last year they placed fourth with 0.47 birds heard per hour. This represents a 43% increase between years! The Tidewater and Southwest placed third and fourth, respectively while the lowest rates were seen in the Eastern Piedmont and Central Mountain Regions (Table 8).

Chronological. – Gobbling activity is thought to have 2 peak periods through the season. The first peak comes as gobblers attempt to attract hens. The first peak generally occurs in March. Gobbling declines in late March and early April during peak mating. A second peak may occur in mid-late April as hens leave the gobblers to begin laying eggs and incubating nests.

Gobbling activity was highest during the first week of the season (Table 10). Gobbling declined after the first week and remained fairly constant through the balance of the season. Last year gobbling was higher during the second week of the season. The highest moving average daily gobbling rates were seen on April 8 and 10 (Fig.1). Last year the highest daily rates were seen on April 19 and 20. Gobbling patterns were generally similar between areas East and West of the Blue Ridge Mountains (Fig. 2) and by region (Table 10).

Intensity. – We grouped gobbling intensity into 3 categories (no gobbling, poor gobbling, or fair-good). The best hunting conditions

appeared during the first week of the season with the highest positive conditions (fair-good gobbling). Good or fair conditions tended to decline through the season. Hunts with no gobbling tended to increase as the season progressed. The percentage of hunts with roost or poor gobbling conditions did not change significantly during the season (Fig. 3).

Land Type. – In 2006, individuals hunting on private lands (0.65 ± 0.01 , $n = 3,891$) heard more birds than those hunting on federal (0.50 ± 0.02 , $n = 762$) or state lands (0.32 ± 0.03 , $n = 149$). These results agree with previous survey results where private land gobbling rates have been higher than public-owned lands.

Hen Statistics

Cooperators averaged hearing 0.70, seeing 0.86, and calling in 0.22 hens per hunt during the 2006 season (Table 11). These statistics suggest that the female segment of the turkey population has not changed significantly in recent years. These results differ from the gobbler statistics that suggested an increase in the male segment. Annual differences in the timing of nesting could influence the number of hens seen by cooperators and make this statistic less reliable than the male observations.

Through the survey history the average number of hens seen and called in per hunt typically declines by week of the season (Tables 12 and 13). The 2005 and 2006 seasons were atypical in that the number of hens seen increased during week 5 of the season. Some of this increase may be attributed to cooperators taking advantage of hunting in the afternoons. However, only 10 percent of hunts began in the afternoon while 24 percent ended in the afternoon. In three other years of the survey,

(1987, 1992, and 1998) the number of hens seen increased at the end of the season (Table 13). The increase in hen observation rates at the end of the season may indicate poor nest success rates if hens lost their nests and were more visible to hunters. Reproductive rates, based on fall feather samples, were below average during 1992, 1998, and 2005 seasons. While observations of hens declined steadily through the season, which may indicate normal nesting patterns, another potential problem was seen in the sheer number of females seen at the end of the gobbler season compared to the number at the beginning. Theoretically, the ideal scenario would be for cooperators to report seeing record numbers of females early in the season and a smaller percentage of those birds at the end of the season. Their disappearance would indicate nesting. In most good reproductive years we've noticed this type of scenario, with hen observation rates in the last week representing 50% or less of the observations seen in the first week. From 2001 through 2004 cooperators reported seeing more than half as many hens during the last week of the season as they did during the first week. Fortunately, in 2004 the percentage of hens seen at the end of the season was less than 40% of the first week. These data (fewer hens seen at end of the season) may suggest more successful nesting efforts. Reproductive success measured from feathers collected at game check stations verified above average recruitment in 2004.

The number of hens flushed per 100 hours increased sharply during the second week of (17 April – 24 April; Table 14) of the 2006 season, which may be indicative of peak incubation. These dates are earlier than last years peak of hen flushing which occurred on April 24-30. A total of 60 hens were flushed from their nests by cooperators during 4,840

hunts in the 2006 season. On average, a hen was flushed on 1.2 percent of hunts or every 81 hunts. These statistics are lower than last year when a hen was flushed on every 55 hunts.

Interference

Hunters. – Many (34%) cooperators experienced some type of interference from other hunters in 2006 (Table 15). The rate of interference reported by hunters appears to be relatively stable over the past 7 years, ranging between 35 and 40% (Table 15). Recent rates appear lower than surveys before 1993 where more than half of cooperators reported interference (Table 15).

On average, cooperators reported seeing 3.0 (Table 15) other hunters during the 2006 season. The most frequently reported (mode) number was 0. The median number of hunters seen was 2. The highest number of hunters reported seen by a cooperator was 34 over the course of the season.

Dogs. – About 41% of cooperators reported seeing free ranging dogs (Table 16). There has been little change in dog disturbance rates over the past several years (Table 16). Free ranging dogs are a concern as a potential predator for wild turkey and other ground-nesting birds. Several research projects in the Southeast have identified dogs as a major predator of nesting hens and poults.

Violations

About 1 out of 5 cooperators (19%) reported seeing a game law violation in 2006. This level of violations is slightly higher than last year (14%) and was comparable to 2003 where 20% of cooperators reported violations. As in

previous years, trespassing led all violations (Table 17). The illegal killing of hens, either intentionally or mistakenly identified as a gobbler, was perhaps of greatest concern because of the potential effects on population status and growth. We have found a 6% illegal mortality rate of female turkeys in Virginia during a study of radio marked between 1989 and 1994.

Remarks

Cooperators provided a variety of comments on their observations, preferences and opinions on the 2006 season. A summary of these remarks is included in Appendix A. Remarks were not included if the name and address were not included on the survey.

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Robert Ellis and Steve Capel provided critical review of this manuscript. Rita Crane provided valuable assistance reviewing surveys and summarizing remarks. The Department would like to thank those individuals who participated in the survey and the Virginia State Chapter of the National Wild Turkey Federation and Linda Layser for their assistance distributing forms to their membership. This survey and publication was funded by Pittman-Robertson Federal Aid to Wildlife Restoration Project WE99R.

LITERATURE CITED

Jagnow, C. P. and D. E. Steffen. 2005. Virginia Survey of hunter harvest, effort and attitudes 2004-05. Virginia Department of

Game and Inland Fisheries, Wildlife
Resource Bulletin No. 05-7, Richmond,
Virginia, USA.

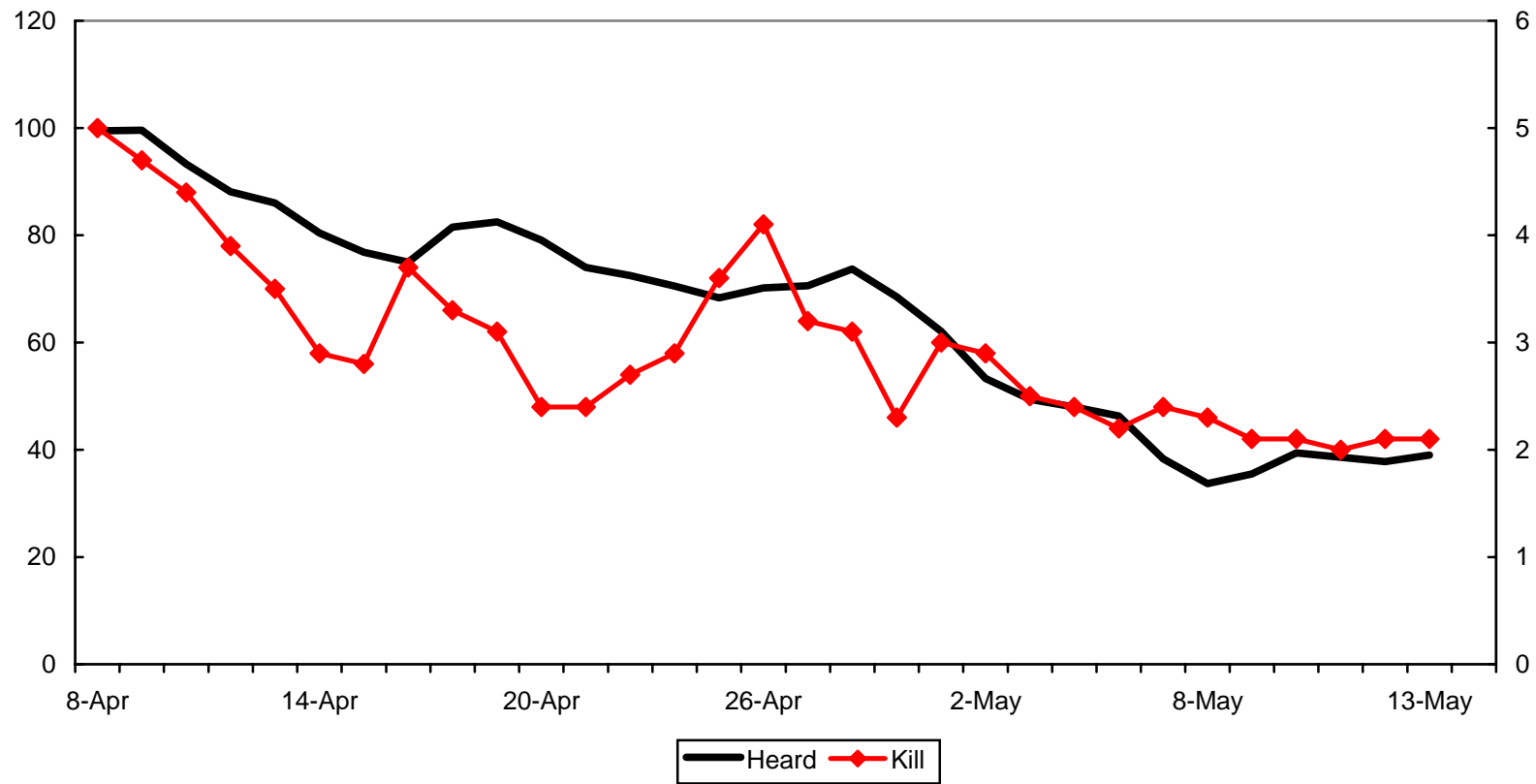


Figure 1. Statewide gobbling and harvest rates by day in Virginia, 2006.

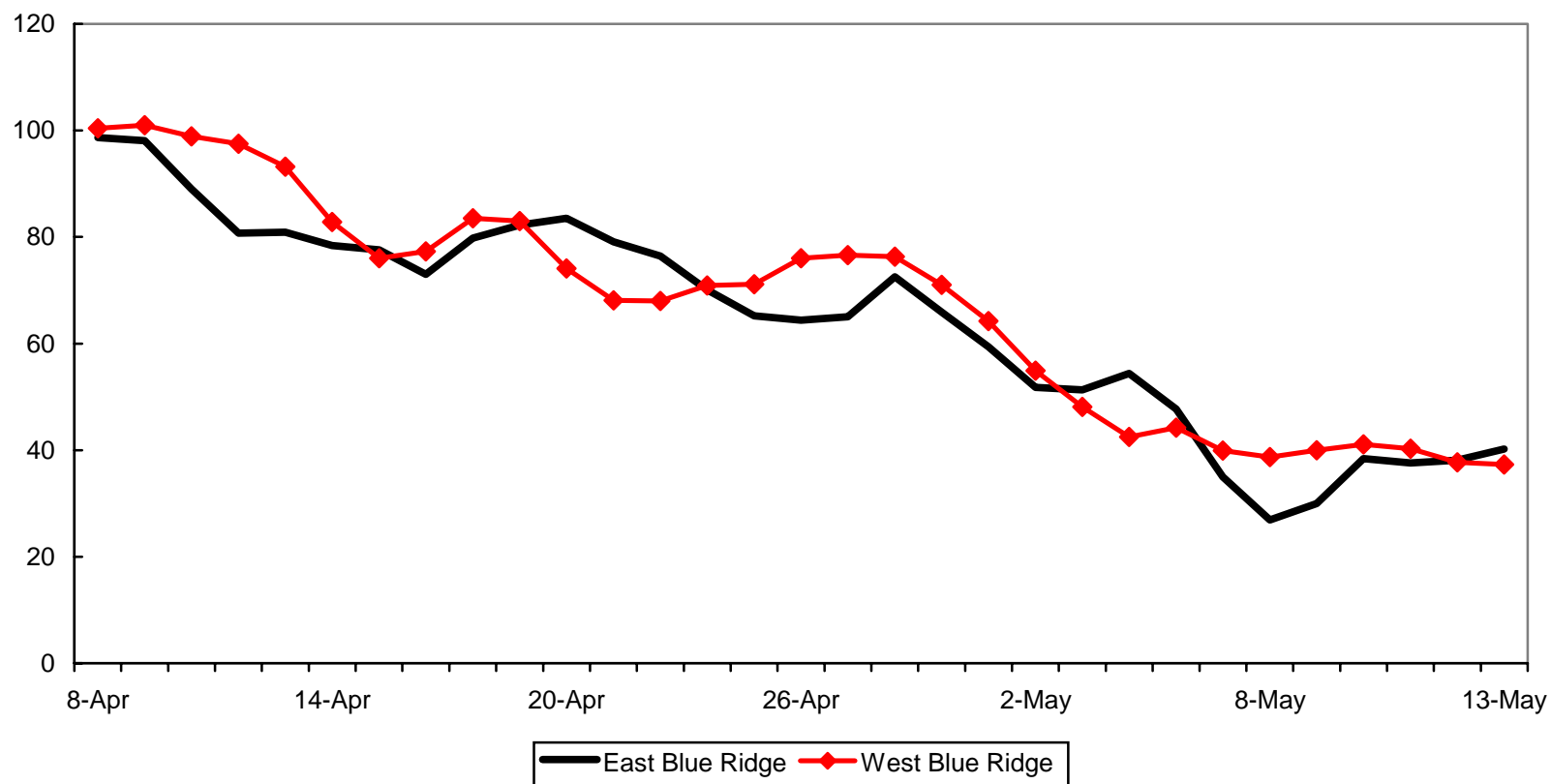


Figure 2. Daily gobbling rates by region in Virginia, 2006.

Percent of Hunts

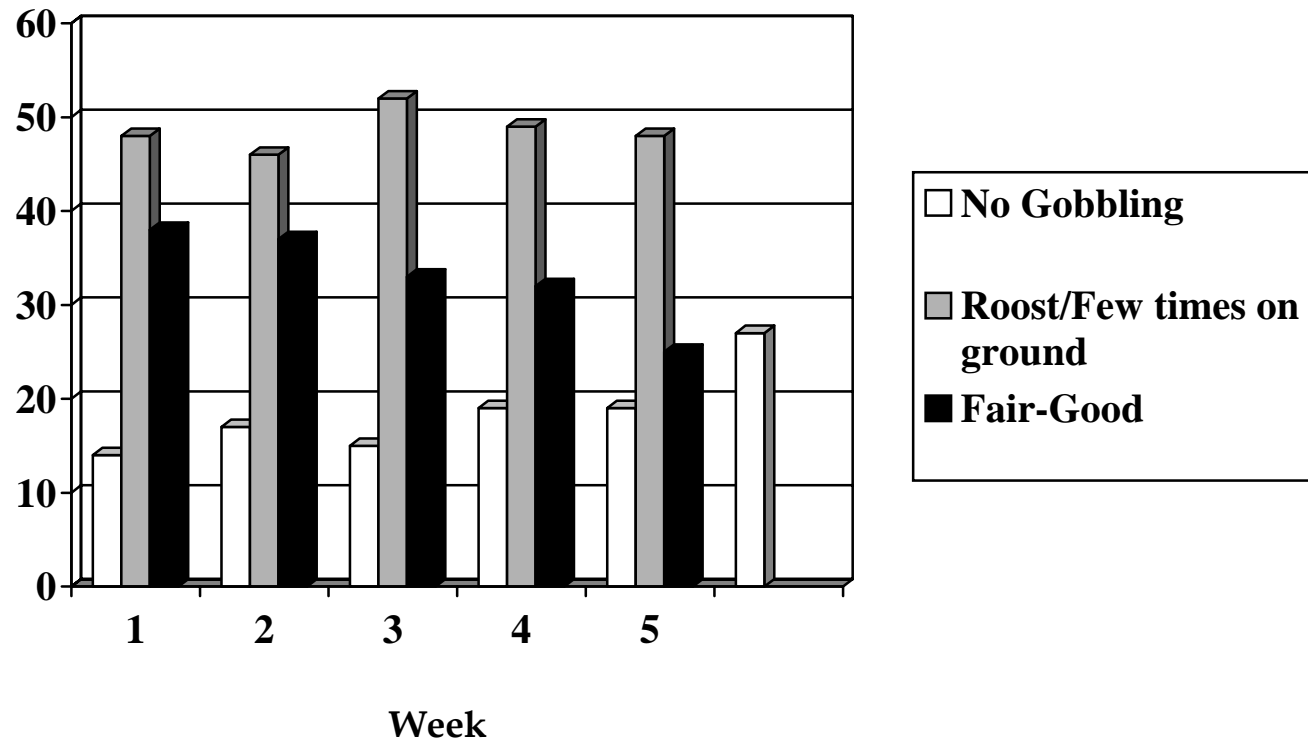


Figure 3. Gobbling intensity by week in Virginia, 2006.

Table 1. Hunting effort, scouting, and decoy use by cooperating wild turkey hunters in Virginia.

| Year | Hunters (<i>n</i>) | Hunting Days (<i>n</i>) | Hunts/Season | Hours/Day | Scouting Days/ Season | % Using Decoys |
|------|-------------------------|------------------------------|----------------|----------------|-----------------------------|-------------------|
| 1987 | 133 | 1,364 | 11.5 | 3.2 | | 15 |
| 1988 | 230 | 2,447 | 13.7 | 3.2 | | 7 |
| 1989 | 241 | 2,622 | 13 | 3.1 | | 15 |
| 1990 | 303 | 3,703 | 12.9 | 3.3 | | 18 |
| 1991 | 408 | 4,459 | 10.9 \pm 0.3 | 3.2 \pm 0.02 | | 15 |
| 1992 | 446 | 5,031 | 11.3 \pm 0.3 | 3.2 \pm 0.03 | | 25 |
| 1993 | 369 | 4,316 | 11.7 \pm 0.4 | 3.2 \pm 0.02 | | 36 |
| 1994 | 341 | 4,018 | 12.0 \pm 0.4 | 3.2 \pm 0.03 | 4.7 \pm 0.3 | 46 |
| 1995 | 401 | 4,678 | 11.7 \pm 0.4 | 3.3 \pm 0.03 | 6.7 \pm 1.1 | 46 |
| 1996 | 461 | 5,502 | 11.7 \pm 0.3 | 3.2 \pm 0.02 | 5.1 \pm 0.3 | 56 |
| 1997 | 486 | 5,610 | 11.5 \pm 0.3 | 3.3 \pm 0.02 | 5.0 \pm 0.2 | 60 |
| 1998 | 455 | 5,085 | 11.2 \pm 0.3 | 3.3 \pm 0.02 | 5.4 \pm 0.3 | 61 |
| 1999 | 490 | 5,704 | 11.6 \pm 0.3 | 3.3 \pm 0.02 | 5.1 \pm 0.3 | 63 |
| 2000 | 441 | 5,655 | 12.8 \pm 0.3 | 3.3 \pm 0.02 | 5.0 \pm 0.3 | 65 |
| 2001 | 418 | 5,368 | 12.8 \pm 0.4 | 3.3 \pm 0.02 | 4.9 \pm 0.3 | 69 |
| 2002 | 380 | 4,726 | 12.1 \pm 0.3 | 3.4 \pm 0.02 | 5.0 \pm 0.3 | 71 |
| 2003 | 355 | 4,545 | 12.8 \pm 0.4 | 3.3 \pm 0.02 | 4.6 \pm 0.3 | 72 |
| 2004 | 352 | 4,352 | 12.5 \pm 0.4 | 3.4 \pm 0.02 | 4.3 \pm 0.3 | 66 |
| 2005 | 345 | 4,303 | 12.9 \pm 0.5 | 3.4 \pm 0.03 | 4.3 \pm 0.2 | 69 |
| 2006 | 407 | 4,840 | 11.5 \pm 0.3 | 3.4 \pm 0.03 | 3.9 \pm 0.9 | 70 |

Table 2. Hunting effort by week for cooperating wild turkey hunters in Virginia.

| Year | Day 1 | Hours/Hunt \pm SE <i>n</i> (Hunts) | | | | |
|------|------------------------|---|--------------------------|--------------------------|------------------------|------------------------|
| | | Week | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| 1994 | 3.84 \pm 0.09 266 | 3.33 \pm 0.05 1,115 | 3.15 \pm 0.05 879 | 3.02 \pm 0.06 587 | 3.12 \pm 0.06 625 | 3.20 \pm 0.08 542 |
| 1995 | 3.96 \pm 0.08 344 | 3.37 \pm 0.05 1,363 | 3.22 \pm 0.05 1,018 | 3.15 \pm 0.05 700 | 3.14 \pm 0.06 691 | 3.04 \pm 0.06 561 |
| 1996 | 3.93 \pm 0.07 378 | 3.31 \pm 0.04 1,458 | 3.16 \pm 0.04 1,181 | 3.17 \pm 0.05 978 | 3.09 \pm 0.06 822 | 3.17 \pm 0.06 670 |
| 1997 | 3.33 \pm 0.07 400 | 3.38 \pm 0.04 1,467 | 3.35 \pm 0.04 1,128 | 3.10 \pm 0.05 942 | 3.15 \pm 0.05 848 | 3.27 \pm 0.05 799 |
| 1998 | 3.89 \pm 0.08 394 | 3.43 \pm 0.04 1,480 | 3.12 \pm 0.05 1,101 | 3.10 \pm 0.05 808 | 3.14 \pm 0.06 716 | 2.98 \pm 0.06 597 |
| 2000 | 3.74 \pm 0.07 363 | 3.45 \pm 0.04 1,392 | 3.31 \pm 0.04 1,087 | 3.40 \pm 0.05 999 | 3.24 \pm 0.06 975 | 3.07 \pm 0.06 829 |
| 2001 | 4.00 \pm 0.08 363 | 3.48 \pm 0.04 1,348 | 3.34 \pm 0.05 1,136 | 3.27 \pm 0.05 1,004 | 3.22 \pm 0.05 866 | 3.08 \pm 0.06 639 |
| 2002 | 4.00 \pm 0.08 324 | 3.47 \pm 0.04 1,385 | 3.46 \pm 0.05 909 | 3.29 \pm 0.05 811 | 3.28 \pm 0.06 732 | 3.09 \pm 0.06 547 |
| 2003 | 3.85 \pm 0.08 293 | 3.38 \pm 0.04 1,172 | 3.35 \pm 0.06 1,004 | 3.29 \pm 0.05 855 | 3.19 \pm 0.06 600 | 3.18 \pm 0.06 619 |
| 2004 | 3.98 \pm 0.04 308 | 3.40 \pm 0.02 1,013 | 3.38 \pm 0.02 975 | 3.20 \pm 0.02 748 | 3.47 \pm 0.02 661 | 3.55 \pm 0.02 603 |
| 2005 | 3.75 \pm 0.09 278 | 3.24 \pm 0.05 894 | 3.16 \pm 0.05 795 | 3.10 \pm 0.07 591 | 3.57 \pm 0.01 688 | 3.50 \pm 0.01 617 |
| 2006 | 3.36 \pm 0.04 291 | 3.35 \pm 0.02 1320 | 3.21 \pm 0.02 973 | 3.20 \pm 0.02 798 | 3.50 \pm 0.02 779 | 3.87 \pm 0.02 624 |

Table 3. Season gobbler statistics reported by cooperating wild turkey hunters in Virginia.

| Year | Gobblers Heard | Gobblers Called | Gobblers Seen | Gobblers Killed | Gobblers Crippled | Gobblers Missed |
|------|-------------------|--------------------|------------------|--------------------|----------------------|--------------------|
| 1991 | 13.4 \pm 0.6 | 3.0 \pm 0.2 | 4.6 \pm 0.03 | 0.8 \pm 0.05 | 0.07 \pm 0.01 | 0.30 \pm 0.03 |
| 1992 | 16.3 \pm 0.7 | 3.6 \pm 0.2 | 5.4 \pm 0.3 | 0.8 \pm 0.04 | 0.05 \pm 0.01 | 0.30 \pm 0.04 |
| 1993 | 16.0 \pm 0.8 | 3.3 \pm 0.2 | 4.9 \pm 0.3 | 0.7 \pm 0.04 | 0.05 \pm 0.01 | 0.30 \pm 0.03 |
| 1994 | 14.6 \pm 0.7 | 3.5 \pm 0.2 | 5.8 \pm 0.4 | 0.72 \pm 0.04 | 0.04 \pm 0.01 | 0.29 \pm 0.03 |
| 1995 | 20.1 \pm 0.8 | 4.5 \pm 0.2 | 6.6 \pm 0.3 | 0.93 \pm 0.04 | 0.07 \pm 0.01 | 0.33 \pm 0.03 |
| 1996 | 20.1 \pm 0.8 | 5.0 \pm 0.2 | 7.7 \pm 0.4 | 0.91 \pm 0.05 | 0.05 \pm 0.01 | 0.33 \pm 0.03 |
| 1997 | 21.7 \pm 0.8 | 4.7 \pm 0.2 | 7.7 \pm 0.4 | 0.87 \pm 0.04 | 0.04 \pm 0.01 | 0.30 \pm 0.03 |
| 1998 | 19.4 \pm 0.8 | 4.6 \pm 0.2 | 7.4 \pm 0.3 | 0.84 \pm 0.04 | 0.05 \pm 0.01 | 0.38 \pm 0.03 |
| 1999 | 20.6 \pm 0.8 | 2 \pm 0.2 | .2 \pm 0.3 | 0.81 \pm 0.04 | 0.07 \pm 0.01 | 0.33 \pm 0.03 |
| 2000 | 22.0 \pm 0.9 | 4.5 \pm 0.2 | 7.9 \pm 0.4 | 0.87 \pm 0.04 | 0.06 \pm 0.01 | 0.35 \pm 0.03 |
| 2001 | 26.7 \pm 1.1 | 5.7 \pm 0.3 | 9.1 \pm 0.5 | 1.04 \pm 0.05 | 0.06 \pm 0.01 | 0.35 \pm 0.03 |
| 2002 | 27.8 \pm 1.0 | 5.1 \pm 0.3 | 8.8 \pm 0.5 | 1.00 \pm 0.05 | 0.06 \pm 0.01 | 0.45 \pm 0.04 |
| 2003 | 25.1 \pm 1.1 | 5.4 \pm 0.4 | 8.7 \pm 0.6 | 1.01 \pm 0.05 | 0.06 \pm 0.01 | 0.40 \pm 0.04 |
| 2004 | 21.1 \pm 0.9 | 4.2 \pm 0.3 | 8.2 \pm 0.6 | 0.88 \pm 0.05 | 0.04 \pm 0.01 | 0.20 \pm 0.02 |
| 2005 | 21.3 \pm 1.0 | 5.0 \pm 0.3 | 9.0 \pm 0.5 | 0.92 \pm 0.05 | 0.03 \pm 0.01 | 0.31 \pm 0.04 |
| 2006 | 24.7 \pm 1.0 | 5.1 \pm 0.3 | 9.1 \pm 0.4 | 1.07 \pm 0.05 | 0.05 \pm 0.01 | 0.29 \pm 0.03 |

Table 4. Shot distances and harvest success of cooperating hunters in Virginia.

| Year | Shotgun Distance Killed (Yd) ^a | Shotgun Distance Missed (Yd) ^a | Shotgun Distance Crippled (Yd) ^a | % Called in Killed – Cooperator ^b | % Called in Killed- Cooperator & Partner ^b | % Crippling Loss ^b All weapons |
|------|---|---|---|--|--|---|
| 1994 | 26.6 ± 0.6 (239) | 33.9 ± 1.2 (64) | 35.7 ± 2.5 (13) | 20 | | 5.0 |
| 1995 | 26.5 ± 0.5 (362) | 32.9 ± 1.1 (103) | 33.5 ± 2.2 (26) | 20 | | 6.7 |
| 1996 | 27.1 ± 0.5 (398) | 34.5 ± 0.9 (115) | 35.9 ± 2.0 (24) | 18 | | 5.6 |
| 1997 | 26.1 ± 0.5 (405) | 34.4 ± 1.0 (107) | 37.6 ± 0.3 (16) | 18 | | 3.9 |
| 1998 | 27.6 ± 0.4 (411) | 33.8 ± 1.2 (104) | 34.9 ± 1.9 (18) | 18 | 30 | 5.3 |
| 1999 | 26.9 ± 0.5 (418) | 36.1 ± 1.4 (92) | 29.2 ± 3.8 (16) | 19 | 30 | 7.9 |
| 2000 | 27.6 ± 0.7 (405) | 34.2 ± 1.2 (87) | 31.5 ± 2.5 (19) | 19 | 29 | 6.3 |
| 2001 | 28.4 ± 0.8 (468) | 33.7 ± 1.2 (72) | 35.1 ± 2.1 (18) | 18 | 28 | 5.8 |
| 2002 | 29.4 ± 0.8 (383) | 36.0 ± 1.2 (88) | 35.3 ± 2.5 (20) | 20 | 30 | 5.4 |
| 2003 | 28.9 ± 0.9 (380) | 35.3 ± 1.4 (83) | 32.1 ± 1.8 (14) | 19 | 30 | 5.5 |
| 2004 | 28.9 ± 0.9 (315) | 34.8 ± 1.6 (51) | 35.7 ± 4.2 (9) | 21 | 30 | 4.0 |
| 2005 | 27.9 ± 0.6 (306) | 35.5 ± 1.2 (78) | 34.6 ± 2.8 (10) | 23 | 29 | 3.8 |
| 2006 | 27.7 ± 0.5 (403) | 33.8 ± 1.3 (88) | 28.5 ± 2.3 (16) | 21 | 31 | 3.1 |

^a Distance variables are calculated from End-of-Season Questionnaire.^b Percent called and crippling are calculated from daily hunt records.

Table 5. Percent of wild turkey harvest by hour for cooperating wild turkey hunters in Virginia.

| Year | Time Begin Time End | | | | | | | <i>n</i> |
|-------|------------------------|----------------|----------------|----------------|----------------|----------------|-----------------|----------|
| | 06:00 06:59 | 07:00 07:59 | 08:00 08:59 | 09:00 09:59 | 10:00 10:59 | 11:00 11:59 | 12:00 Sunset | |
| 1998 | 22 | 33 | 18 | 12 | 9 | 5 | | 559 |
| 1999 | 26 | 31 | 18 | 12 | 8 | 5 | | 585 |
| 2000 | 22 | 36 | 17 | 12 | 8 | 6 | | 541 |
| 2001 | 25 | 30 | 19 | 11 | 8 | 7 | | 579 |
| 2002 | 25 | 30 | 17 | 12 | 7 | 8 | | 520 |
| 2003 | 28 | 31 | 18 | 11 | 8 | 4 | | 501 |
| 2004* | 26 | 37 | 15 | 11 | 7 | 5 | | 397 |
| 2005 | 23 | 29 | 18 | 12 | 9 | 5 | 4 | 423 |
| 2006 | 20 | 33 | 20 | 10 | 8 | 6 | 2 | 574 |

* Only included first 3-weeks of 2004 season.

Table 6. Age distribution (%) of gobblers harvested as reported by cooperating wild turkey hunters in Virginia.

| Year | Age (Years) | | | | <i>n</i> ^a |
|------|-------------|----|----|----|-----------------------|
| | 1 | 2 | 3 | 4+ | |
| 1991 | 16 | 37 | 40 | 7 | 328 |
| 1992 | 18 | 29 | 37 | 15 | 347 |
| 1993 | 10 | 47 | 35 | 7 | 267 |
| 1994 | 22 | 33 | 29 | 15 | 250 |
| 1995 | 15 | 35 | 40 | 10 | 380 |
| 1996 | 13 | 39 | 40 | 8 | 409 |
| 1997 | 8 | 42 | 41 | 9 | 424 |
| 1998 | 12 | 37 | 38 | 14 | 433 |
| 1999 | 16 | 35 | 35 | 15 | 496 |
| 2000 | 13 | 34 | 38 | 15 | 429 |
| 2001 | 13 | 32 | 38 | 17 | 482 |
| 2002 | 9 | 36 | 41 | 14 | 417 |
| 2003 | 7 | 37 | 42 | 14 | 402 |
| 2004 | 11 | 34 | 37 | 17 | 316 |
| 2005 | 15 | 28 | 40 | 17 | 319 |
| 2005 | 11 | 30 | 45 | 14 | 444 |

^a *n* = reported gobbler harvest.

Table 7. Percent of cooperators rating season in Virginia by category.

| Year | Excellent | Good | Fair | Poor | No Opinion |
|------|-----------|------|------|------|------------|
| 1990 | 23 | 30 | 25 | 21 | 1 |
| 1991 | 23 | 33 | 26 | 17 | 1 |
| 1992 | 17 | 50 | 29 | 5 | 1 |
| 1993 | 22 | 30 | 29 | 19 | 1 |
| 1994 | 25 | 29 | 22 | 22 | 1 |
| 1995 | 40 | 34 | 17 | 9 | 1 |
| 1996 | 36 | 32 | 21 | 12 | 1 |
| 1997 | 37 | 30 | 19 | 13 | 1 |
| 1998 | 29 | 30 | 24 | 17 | 1 |
| 1999 | 29 | 29 | 24 | 16 | 2 |
| 2000 | 26 | 31 | 24 | 17 | 2 |
| 2001 | 36 | 32 | 19 | 12 | 1 |
| 2002 | 25 | 34 | 24 | 14 | 2 |
| 2003 | 23 | 30 | 27 | 19 | 1 |
| 2004 | 14 | 34 | 23 | 23 | 2 |
| 2005 | 15 | 28 | 40 | 17 | 1 |
| 2006 | 29 | 36 | 21 | 12 | 1 |

Table 8. Region gobbling by hour for cooperating wild turkey hunters in Virginia.

| Year | Gobblers Heard / Hour \pm SE (<i>n</i>) | | | | | | |
|------|--|----------------------------|----------------------------|--------------------------|----------------------------|--------------------------|----------------------------|
| | Tidewater | Southwest | Western Piedmont | Eastern Piedmont | Central Mountain | Northern | State |
| 1995 | 0.62 \pm 0.02 (947) | 0.51 \pm 0.02 (834) | 0.48 \pm 0.02 (767) | 0.53 \pm 0.02 (847) | 0.52 \pm 0.02 (895) | 0.44 \pm 0.02 (369) | 0.53 \pm 0.01 (4,678) |
| 1996 | 0.51 \pm 0.02 (1,145) | 0.57 \pm 0.02 (1,358) | 0.55 \pm 0.02 (906) | 0.50 \pm 0.02 (802) | 0.48 \pm 0.02 (998) | 0.49 \pm 0.02 (571) | 0.52 \pm 0.01 (5,502) |
| 1997 | 0.63 \pm 0.02 (1,358) | 0.55 \pm 0.02 (888) | 0.65 \pm 0.02 (892) | 0.53 \pm 0.02 (831) | 0.60 \pm 0.02 (881) | 0.45 \pm 0.02 (704) | 0.57 \pm 0.01 (5,610) |
| 1998 | 0.56 \pm 0.02 (1,261) | 0.51 \pm 0.02 (900) | 0.71 \pm 0.03 (807) | 0.56 \pm 0.02 (698) | 0.44 \pm 0.02 (856) | 0.41 \pm 0.02 (572) | 0.53 \pm 0.01 (5,096) |
| 1999 | 0.56 \pm 0.02 (1,392) | 0.55 \pm 0.02 (970) | 0.62 \pm 0.02 (867) | 0.52 \pm 0.02 (762) | 0.49 \pm 0.02 (1,040) | 0.46 \pm 0.02 (647) | 0.54 \pm 0.01 (5,704) |
| 2000 | 0.53 \pm 0.01 (1,322) | 0.55 \pm 0.02 (886) | 0.69 \pm 0.02 (1,035) | 0.46 \pm 0.02 (811) | 0.43 \pm 0.01 (961) | 0.36 \pm 0.02 (638) | 0.51 \pm 0.01 (5,655) |
| 2001 | 0.55 \pm 0.02 (1,060) | 0.65 \pm 0.02 (1,012) | 0.76 \pm 0.02 (986) | 0.59 \pm 0.02 (670) | 0.62 \pm 0.02 (958) | 0.50 \pm 0.02 (654) | 0.62 \pm 0.01 (5,368) |
| 2002 | 0.55 \pm 0.02 (898) | 0.60 \pm 0.02 (879) | 0.70 \pm 0.02 (776) | 0.60 \pm 0.03 (578) | 0.52 \pm 0.02 (883) | 0.42 \pm 0.02 (693) | 0.56 \pm 0.01 (4,726) |
| 2003 | 0.59 \pm 0.02 (943) | 0.63 \pm 0.02 (825) | 0.71 \pm 0.02 (831) | 0.69 \pm 0.03 (572) | 0.46 \pm 0.02 (711) | 0.45 \pm 0.02 (649) | 0.59 \pm 0.01 (4,545) |
| 2004 | 0.50 \pm 0.02 (803) | 0.54 \pm 0.02 (885) | 0.58 \pm 0.02 (700) | 0.57 \pm 0.03 (540) | 0.39 \pm 0.02 (744) | 0.41 \pm 0.02 (666) | 0.49 \pm 0.01 (4,352) |
| 2005 | 0.51 \pm 0.02 (798) | 0.57 \pm 0.02 (907) | 0.57 \pm 0.02 (804) | 0.46 \pm 0.02 (515) | 0.42 \pm 0.02 (706) | 0.47 \pm 0.02 (570) | 0.51 \pm 0.01 (4,303) |
| 2006 | 0.62 \pm 0.02 (842) | 0.60 \pm 0.02 (1,020) | 0.68 \pm 0.02 (920) | 0.57 \pm 0.03 (455) | 0.54 \pm 0.02 (942) | 0.67 \pm 0.03 (648) | 0.61 \pm 0.01 (4,840) |

Table 9. Region gobbling by hunt for cooperating wild turkey hunters in Virginia.

| Year | Gobblers Heard/Hunt \pm SE (n) | | | | | | |
|------|-------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|--------------------------|----------------------------|
| | Tidewater | Southwest | Western Piedmont | Eastern Piedmont | Central Mountain | Northern | State |
| 1993 | 1.83 \pm 0.06 (1091) | 1.17 \pm 0.05 (736) | 1.28 \pm 0.07 (632) | 1.10 \pm 0.04 (748) | 1.22 \pm 0.05 (754) | 1.29 \pm 0.10 (311) | 1.37 \pm 0.02 (4,316) |
| 1994 | 1.28 \pm 0.05 (897) | 1.09 \pm 0.05 (643) | 1.19 \pm 0.06 (590) | 1.28 \pm 0.06 (758) | 1.26 \pm 0.05 (741) | 1.39 \pm 0.10 (333) | 1.24 \pm 0.02 (4,018) |
| 1995 | 1.99 \pm 0.06 (947) | 1.74 \pm 0.06 (834) | 1.58 \pm 0.05 (767) | 1.52 \pm 0.05 (847) | 1.82 \pm 0.06 (895) | 1.52 \pm 0.08 (369) | 1.72 \pm 0.03 (4,678) |
| 1996 | 1.67 \pm 0.05 (1,145) | 1.91 \pm 0.06 (1,037) | 1.69 \pm 0.06 (1,527) | 1.45 \pm 0.06 (1,165) | 1.71 \pm 0.06 (998) | 1.61 \pm 0.07 (571) | 1.68 \pm 0.02 (5,502) |
| 1997 | 2.10 \pm 0.06 (1,358) | 1.81 \pm 0.06 (888) | 2.0 \pm 0.06 (892) | 1.48 \pm 0.05 (831) | 2.16 \pm 0.07 (881) | 1.58 \pm 0.06 (704) | 1.88 \pm 0.02 (5,584) |
| 1998 | 1.77 \pm 0.05 (1,261) | 1.82 \pm 0.06 (900) | 2.12 \pm 0.07 (807) | 1.64 \pm 0.07 (698) | 1.61 \pm 0.06 (856) | 1.44 \pm 0.07 (572) | 1.70 \pm 0.03 (5,096) |
| 1999 | 1.78 \pm 0.05 (1,392) | 1.96 \pm 0.06 (970) | 1.91 \pm 0.06 (867) | 1.57 \pm 0.05 (762) | 1.78 \pm 0.05 (1,040) | 1.53 \pm 0.06 (647) | 1.77 \pm 0.02 (5,704) |
| 2000 | 1.67 \pm 0.04 (1,322) | 1.92 \pm 0.06 (886) | 2.28 \pm 0.06 (1,035) | 1.43 \pm 0.06 (811) | 1.58 \pm 0.05 (961) | 1.19 \pm 0.05 (638) | 1.72 \pm 0.02 (5,645) |
| 2001 | 1.75 \pm 0.05 (1,055) | 2.31 \pm 0.08 (1,012) | 2.44 \pm 0.07 (986) | 1.84 \pm 0.07 (670) | 2.32 \pm 0.07 (958) | 1.64 \pm 0.07 (654) | 2.08 \pm 0.03 (5,368) |
| 2002 | 1.89 \pm 0.06 (896) | 2.17 \pm 0.07 (879) | 2.23 \pm 0.07 (776) | 1.71 \pm 0.07 (578) | 2.00 \pm 0.07 (883) | 1.32 \pm 0.06 (693) | 1.91 \pm 0.03 (4,708) |
| 2003 | 1.94 \pm 0.06 (943) | 2.14 \pm 0.07 (825) | 2.24 \pm 0.07 (831) | 2.02 \pm 0.08 (572) | 1.71 \pm 0.07 (711) | 1.50 \pm 0.06 (649) | 1.96 \pm 0.03 (4,545) |
| 2004 | 1.79 \pm 0.08 (802) | 1.94 \pm 0.07 (885) | 1.86 \pm 0.07 (700) | 1.79 \pm 0.08 (540) | 1.50 \pm 0.06 (744) | 1.34 \pm 0.07 (666) | 1.70 \pm 0.03 (4,352) |
| 2005 | 1.69 \pm 0.06 (798) | 2.09 \pm 0.07 (907) | 1.82 \pm 0.06 (804) | 1.39 \pm 0.07 (515) | 1.52 \pm 0.06 (706) | 1.48 \pm 0.07 (570) | 1.70 \pm 0.03 (4,303) |
| 2006 | 2.06 \pm 0.06 (842) | 2.28 \pm 0.07 (1,020) | 2.18 \pm 0.07 (920) | 1.76 \pm 0.09 (455) | 1.94 \pm 0.07 (942) | 2.05 \pm 0.06 (648) | 2.07 \pm 0.03 (4,840) |

Table 10. Region gobbling by week for cooperating wild turkey hunters in Virginia.

| Date | Gobblers Heard/Hour \pm SE | | | | | | |
|----------------|------------------------------|--------------------------|----------------------------|--------------------------|--------------------------|--------------------------|----------------------------|
| | Tidewater | Southwest | Western (n) Piedmont | Eastern Piedmont | Central Mountain | Northern | State |
| Opening Day | 0.67 ± 0.07 (57) | 0.81 ± 0.07 (65) | 1.03 ± 0.13 (55) | 0.88 ± 0.11 (24) | 0.76 ± 0.12 (45) | 0.65 ± 0.10 (38) | 0.79 ± 0.04 (291) |
| Week 1 | 0.74 ± 0.04 (222) | 0.74 ± 0.04 (266) | 0.79 ± 0.04 (262) | 0.78 ± 0.08 (109) | 0.67 ± 0.04 (277) | 0.82 ± 0.07 (184) | 0.75 ± 0.02 (1,320) |
| Week 2 | 0.69 ± 0.04 (172) | 0.69 ± 0.04 (198) | 0.78 ± 0.04 (210) | 0.63 ± 0.06 (98) | 0.48 ± 0.04 (170) | 0.66 ± 0.07 (123) | 0.67 ± 0.02 (973) |
| Week 3 | 0.70 ± 0.04 (157) | 0.59 ± 0.04 (166) | 0.64 ± 0.05 (133) | 0.49 ± 0.06 (77) | 0.60 ± 0.05 (152) | 0.65 ± 0.05 (109) | 0.62 ± 0.02 (798) |
| Week 4 | 0.49 ± 0.04 (123) | 0.42 ± 0.03 (177) | 0.44 ± 0.04 (118) | 0.48 ± 0.07 (74) | 0.40 ± 0.03 (181) | 0.64 ± 0.09 (101) | 0.46 ± 0.02 (779) |
| Week 5 | 0.31 ± 0.03 (105) | 0.34 ± 0.03 (133) | 0.42 ± 0.04 (130) | 0.29 ± 0.05 (70) | 0.33 ± 0.03 (99) | 0.40 ± 0.05 (86) | 0.35 ± 0.02 (624) |

Table 11. Statewide hen observations by hunt for cooperating wild turkey hunters in Virginia.

| Year | Average/Hunt | | |
|------|-----------------|-----------------|-------------------|
| | Hens Heard | Hens Seen | Hens Called In |
| 1993 | 0.39 \pm 0.02 | 0.44 \pm 0.02 | 0.12 \pm 0.01 |
| 1994 | 0.46 \pm 0.02 | 0.54 \pm 0.02 | 0.15 \pm 0.01 |
| 1995 | 0.56 \pm 0.02 | 0.55 \pm 0.02 | 0.16 \pm 0.01 |
| 1996 | 0.66 \pm 0.02 | 0.78 \pm 0.02 | 0.22 \pm 0.01 |
| 1997 | 0.62 \pm 0.02 | 0.74 \pm 0.02 | 0.19 \pm 0.01 |
| 1998 | 0.57 \pm 0.02 | 0.71 \pm 0.02 | 0.17 \pm 0.01 |
| 1999 | 0.58 \pm 0.02 | 0.70 \pm 0.02 | 0.18 \pm 0.01 |
| 2000 | 0.57 \pm 0.02 | 0.76 \pm 0.02 | 0.19 \pm 0.01 |
| 2001 | 0.71 \pm 0.02 | 0.73 \pm 0.02 | 0.19 \pm 0.01 |
| 2002 | 0.72 \pm 0.02 | 0.89 \pm 0.02 | 0.22 \pm 0.01 |
| 2003 | 0.56 \pm 0.02 | 0.74 \pm 0.02 | 0.19 \pm 0.01 |
| 2004 | 0.61 \pm 0.02 | 0.82 \pm 0.03 | 0.22 \pm 0.01 |
| 2005 | 0.69 \pm 0.02 | 0.95 \pm 0.03 | 0.24 \pm 0.01 |
| 2006 | 0.70 \pm 0.02 | 0.86 \pm 0.02 | 0.22 \pm 0.01 |

Table 12. Wild turkey hens seen per hunt by cooperating wild turkey hunters in Virginia.

| Year | Hens Seen/Hunt | | | | | | |
|------|--------------------------|----------------------------|----------------------------|----------------------------|--------------------------|--------------------------|----------------------------|
| | Day 1 | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Season |
| 1993 | 0.63 ± 0.08 (310) | 0.64 ± 0.05 (1,127) | 0.41 ± 0.03 (793) | 0.36 ± 0.03 (793) | 0.28 ± 0.03 (499) | 0.29 ± 0.03 (499) | 0.44 ± 0.02 (4,316) |
| 1994 | 0.79 ± 0.11 (266) | 0.70 ± 0.05 (1,115) | 0.53 ± 0.03 (879) | 0.40 ± 0.04 (591) | 0.40 ± 0.04 (625) | 0.40 ± 0.04 (542) | 0.54 ± 0.02 (4,018) |
| 1995 | 1.0 ± 0.10 (344) | 0.65 ± 0.04 (1,363) | 0.50 ± 0.04 (1,018) | 0.44 ± 0.04 (700) | 0.44 ± 0.04 (692) | 0.39 ± 0.04 (561) | 0.55 ± 0.02 (4,678) |
| 1996 | 1.26 ± 0.13 (378) | 1.02 ± 0.06 (1,462) | 0.80 ± 0.05 (1,182) | 0.62 ± 0.04 (982) | 0.56 ± 0.04 (824) | 0.48 ± 0.04 (674) | 0.78 ± 0.02 (5,502) |
| 1997 | 1.19 ± 0.12 (401) | 0.90 ± 0.05 (1,476) | 0.75 ± 0.04 (1,131) | 0.61 ± 0.04 (948) | 0.59 ± 0.05 (849) | 0.54 ± 0.04 (805) | 0.74 ± 0.02 (5,610) |
| 1998 | 1.12 ± 0.10 (394) | 0.89 ± 0.05 (1,480) | 0.69 ± 0.04 (1,101) | 0.56 ± 0.05 (808) | 0.45 ± 0.04 (716) | 0.57 ± 0.05 (597) | 0.71 ± 0.02 (5,096) |
| 1999 | 1.12 ± 0.12 (413) | 0.87 ± 0.04 (1,640) | 0.68 ± 0.04 (1,150) | 0.52 ± 0.03 (996) | 0.53 ± 0.04 (804) | 0.48 ± 0.04 (701) | 0.70 ± 0.02 (5,570) |
| 2000 | 1.21 ± 0.13 (364) | 0.96 ± 0.05 (1,393) | 0.79 ± 0.05 (1,092) | 0.69 ± 0.04 (1,001) | 0.56 ± 0.04 (976) | 0.41 ± 0.03 (829) | 0.76 ± 0.02 (5,655) |
| 2001 | 1.14 ± 0.09 (363) | 0.83 ± 0.04 (1,355) | 0.75 ± 0.04 (1,138) | 0.65 ± 0.05 (1,007) | 0.60 ± 0.04 (866) | 0.57 ± 0.05 (639) | 0.73 ± 0.02 (5,368) |
| 2002 | 1.51 ± 0.15 (324) | 1.02 ± 0.05 (1,388) | 0.92 ± 0.05 (915) | 0.69 ± 0.05 (816) | 0.71 ± 0.05 (734) | 0.67 ± 0.07 (549) | 0.89 ± 0.02 (4,726) |
| 2003 | 1.00 ± 0.12 (293) | 1.01 ± 0.05 (1,172) | 0.72 ± 0.05 (1,004) | 0.60 ± 0.04 (855) | 0.54 ± 0.05 (600) | 0.55 ± 0.05 (621) | 0.75 ± 0.02 (4,545) |
| 2005 | 1.65 ± 0.20 (278) | 1.20 ± 0.07 (1,032) | 0.96 ± 0.05 (900) | 0.85 ± 0.06 (667) | 0.63 ± 0.05 (740) | 1.38 ± 0.05 (662) | 0.95 ± 0.03 (4,303) |
| 2006 | 1.49 ± 0.14 (291) | 0.90 ± 0.04 (1,320) | 0.85 ± 0.05 (973) | 0.71 ± 0.05 (798) | 0.65 ± 0.05 (779) | 0.80 ± 0.07 (624) | 0.86 ± 0.02 (4,840) |

Table 13. Wild turkey hens called per hunt by cooperating wild turkey hunters in Virginia.

| Year | Hens Called In/Hunt | | | | | | |
|------|--------------------------|----------------------------|----------------------------|----------------------------|--------------------------|--------------------------|-----------------------------|
| | Day 1 | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Season |
| 1993 | 0.18 \pm 0.04 (310) | 0.18 \pm 0.02 (1,127) | 0.10 \pm 0.02 (936) | 0.11 \pm 0.02 (793) | 0.08 \pm 0.01 (651) | 0.10 \pm 0.02 (499) | 0.12 \pm 0.01 (4,316) |
| 1994 | 0.25 \pm 0.05 (266) | 0.21 \pm 0.02 (1,115) | 0.12 \pm 0.02 (879) | 0.10 \pm 0.02 (591) | 0.11 \pm 0.02 (625) | 0.12 \pm 0.02 (542) | 0.15 \pm .0.01 (4,018) |
| 1995 | 0.27 \pm 0.04 (344) | 0.18 \pm 0.02 (1,363) | 0.17 \pm 0.02 (1,018) | 0.12 \pm 0.02 (700) | 0.11 \pm 0.01 (692) | 0.14 \pm 0.02 (561) | 0.16 \pm 0.01 (4,678) |
| 1996 | 0.38 \pm 0.07 (378) | 0.28 \pm 0.02 (1,463) | 0.23 \pm 0.02 (1,182) | 0.17 \pm 0.02 (982) | 0.17 \pm 0.02 (824) | 0.11 \pm 0.02 (674) | 0.22 \pm 0.01 (5,502) |
| 1997 | 0.27 \pm 0.05 (401) | 0.22 \pm 0.02 (1,476) | 0.17 \pm 0.02 (1,131) | 0.17 \pm 0.04 (948) | 0.15 \pm 0.02 (849) | 0.15 \pm 0.02 (849) | 0.19 \pm 0.02 (5,610) |
| 1998 | 0.28 \pm 0.04 (394) | 0.21 \pm 0.02 (1,480) | 0.17 \pm 0.02 (1,101) | 0.13 \pm 0.02 (808) | 0.15 \pm 0.02 (716) | 0.13 \pm 0.02 (597) | 0.18 \pm 0.01 (5,096) |
| 1999 | 0.35 \pm 0.05 (413) | 0.20 \pm 0.02 (1,640) | 0.17 \pm 0.02 (1,150) | 0.16 \pm 0.02 (996) | 0.15 \pm 0.02 (804) | 0.15 \pm 0.02 (701) | 0.18 \pm 0.01 (5,704) |
| 2000 | 0.31 \pm 0.05 (364) | 0.26 \pm 0.03 (1,393) | 0.18 \pm 0.02 (1,092) | 0.16 \pm 0.02 (1,001) | 0.13 \pm 0.02 (976) | 0.13 \pm 0.02 (829) | 0.19 \pm 0.01 (5,655) |
| 2001 | 0.39 \pm 0.04 (363) | 0.19 \pm 0.02 (1,355) | 0.20 \pm 0.02 (1,138) | 0.17 \pm 0.02 (1,007) | 0.20 \pm 0.02 (866) | 0.12 \pm 0.02 (639) | 0.19 \pm 0.01 (5,368) |
| 2002 | 0.39 \pm 0.07 (324) | 0.26 \pm 0.02 (1,388) | 0.23 \pm 0.02 (915) | 0.15 \pm 0.02 (816) | 0.19 \pm 0.02 (734) | 0.17 \pm 0.02 (549) | 0.22 \pm 0.01 (4,726) |
| 2003 | 0.25 \pm 0.06 (293) | 0.25 \pm 0.02 (1,172) | 0.18 \pm 0.02 (1,004) | 0.17 \pm 0.02 (855) | 0.14 \pm 0.02 (600) | 0.15 \pm 0.02 (621) | 0.19 \pm 0.01 (4,545) |
| 2004 | 0.44 \pm 0.09 (308) | 0.26 \pm 0.03 (1,013) | 0.20 \pm 0.02 (975) | 0.24 \pm 0.04 (748) | 0.12 \pm 0.02 (661) | 0.17 \pm 0.03 (603) | 0.22 \pm 0.01 (4,352) |
| 2005 | 0.43 \pm 0.09 (278) | 0.31 \pm 0.03 (1,032) | 0.23 \pm 0.02 (900) | 0.20 \pm 0.02 (667) | 0.17 \pm 0.02 (740) | 0.16 \pm 0.02 (662) | 0.24 \pm 0.01 (4,303) |
| 2006 | 0.41 \pm 0.07 (291) | 0.23 \pm 0.02 (1,320) | 0.21 \pm 0.02 (973) | 0.17 \pm 0.02 (798) | 0.18 \pm 0.02 (779) | 0.18 \pm 0.03 (624) | 0.22 \pm 0.01 (4,840) |

Table 14. Flushing rates of nesting wild turkey hens by cooperating wild turkey hunters in Virginia.

| Year | Hens flushed/100 hrs hunting (number flushed) | | | | | | Season |
|------|--|--------------|--------------|--------------|--------------|--------------|--------------|
| | Day 1 | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | |
| 1999 | 0.56 (9) | 0.48 (27) | 0.38 (14) | 0.39 (12) | 0.49 (12) | 0.64 (14) | 0.47 (88) |
| 2000 | 0.44 (6) | 0.25 (12) | 0.19 (7) | 0.71 (24) | 0.54 (17) | 1.06 (27) | 0.42 (81) |
| 2001 | 0.27 (4) | 0.62 (29) | 0.39 (15) | 0.58 (19) | 0.79 (22) | 0.46 (9) | 0.55 (98) |
| 2002 | 0.39 (5) | 0.25 (12) | 0.70 (22) | 0.67 (18) | 0.58 (14) | 0.41 (7) | 0.49 (78) |
| 2003 | 0 (0) | 0.35 (14) | 0.50 (17) | 0.64 (18) | 0.63 (12) | 0.66 (13) | 0.49 (74) |
| 2004 | 0.08 (1) | 0.18 (6) | 0.15 (5) | 0.46 (11) | 0.39 (9) | 0.28 (6) | 0.26 (74) |
| 2005 | 0.93 (8) | 0.28 (8) | 0.20 (5) | 0.98 (18) | 0.94 (23) | 0.74 (16) | 0.61 (78) |
| 2006 | 0.65 (5) | 0.21 (8) | 0.60 (16) | 0.50 (11) | 0.39 (10) | 0.46 (10) | 0.42 (60) |

Table 15. Interference reported by cooperating wild turkey hunters in Virginia.

| Year | Cooperators(<i>n</i>) | % w/ Interference | % Hunts Disturbed | Avg. Hunters seen |
|------|-------------------------|----------------------|----------------------|----------------------|
| 1987 | 161 | 50 | 10 | |
| 1988 | 230 | 54 | 9 | |
| 1989 | 251 | 47 | 8 | |
| 1990 | 319 | 60 | 11 | 5.5 |
| 1991 | 408 | 60 | 8.1 | 5.6 |
| 1992 | 430 | 52 | 9.0 | 3.7 |
| 1993 | 361 | 47 | 3.8 | 4.6 |
| 1994 | 341 | 36 | 2.8 | 4.0 |
| 1995 | 401 | 48 | 8.2 | 4.5 |
| 1996 | 481 | 39 | 3.3 | 4.5 |
| 1997 | 486 | 42 | 3.6 | 4.4 |
| 1998 | 455 | 35 | 3.2 | 4.5 |
| 1999 | 500 | 38 | 5.2 | 4.3 |
| 2000 | 441 | 38 | 2.9 | 3.9 |
| 2001 | 433 | 38 | 6.2 | 4.1 |
| 2002 | 380 | 39 | 5.9 | 4.0 |
| 2003 | 372 | 40 | 6.3 | 3.9 |
| 2004 | 357 | 40 | 3.1 | 4.7 |
| 2005 | 354 | 37 | — | 4.0 |
| 2006 | 412 | 34 | — | 3.0 |

^a Average was based on cooperators who had experienced interference.

Table 16. Dogs observed during spring gobbler season by cooperating wild turkey hunters in Virginia.

| Year | Percent Cooperators Seeing Dogs | Average Number Hunts Disturbed by Dog |
|------|------------------------------------|--|
| 1993 | 55 | 2.7 ± 0.1 (192) |
| 1994 | 52 | 2.9 ± 0.2 (168) |
| 1995 | 53 | 2.8 ± 0.2 (196) |
| 1996 | 52 | 2.0 ± 0.2 (236) |
| 1997 | 49 | 2.4 ± 0.1 (223) |
| 1998 | 46 | 2.6 ± 0.2 (201) |
| 1999 | 45 | 2.6 ± 0.2 (219) |
| 2000 | 44 | 2.7 ± 0.3 (192) |
| 2001 | 42 | 2.8 ± 0.1 (170) |
| 2002 | 42 | — |
| 2003 | 46 | — |
| 2004 | 41 | — |
| 2005 | 40 | — |
| 2006 | 41 | — |

^a Average was based only on those cooperators that observed dogs.

Table 17. Violations observed during spring gobbler seasons by cooperating wild turkey hunters in Virginia.

| Year | Tres- pass | Pre- Season | Sunday Hunt | Before Hours | After Hours | Over Limit | Baiting | Killing Hens | Other | Total (<i>n</i>) |
|------|---------------|----------------|----------------|-----------------|----------------|---------------|---------|-----------------|-------|-----------------------|
| 1987 | 21 | 17 | 10 | 7 | 7 | 7 | 7 | 7 | 7 | |
| 1988 | 43 | 7 | 5 | 14 | 0 | 5 | 5 | 12 | 2 | 42 |
| 1989 | 53 | 4 | 0 | 17 | 6 | 11 | 2 | 7 | 0 | 53 |
| 1990 | 54 | 6 | 4 | 6 | 0 | 7 | 3 | 3 | 13 | 68 |
| 1991 | 48 | 12 | -- | 10 | -- | 13 | 0 | 7 | 11 | 87 |
| 1992 | 49 | 15 | -- | 9 | -- | 14 | -- | 4 | 9 | 148 |
| 1993 | 70 | 12 | -- | 12 | -- | 21 | -- | 6 | 13 | 134 |
| 1994 | 46 | 14 | -- | 4 | -- | 14 | -- | 3 | 10 | 91 |
| 1995 | 79 | 30 | -- | 23 | -- | 30 | -- | 7 | 23 | 192 |
| 1996 | 61 | 23 | -- | 18 | -- | 26 | -- | 8 | 19 | 155 |
| 1997 | 82 | 13 | -- | 11 | -- | 25 | -- | 2 | 22 | 155 |
| 1998 | 74 | 27 | -- | 19 | -- | 25 | -- | 4 | 23 | 172 |
| 1999 | 64 | 19 | -- | 9 | -- | 21 | -- | 2 | 27 | 142 |
| 2000 | 61 | 18 | -- | 11 | -- | 19 | -- | 3 | 16 | 128 |
| 2001 | 61 | 16 | -- | 7 | -- | 14 | -- | 0 | 12 | 110 |
| 2002 | 61 | 4 | -- | 11 | -- | 20 | -- | 1 | 8 | 104 |
| 2003 | 61 | 6 | -- | 4 | -- | 7 | -- | 2 | 13 | 93 |
| 2004 | 36 | 4 | -- | 6 | -- | 7 | -- | 1 | 7 | 61 |
| 2005 | 40 | 4 | -- | 3 | -- | 7 | -- | 1 | 11 | 66 |
| 2006 | 53 | 8 | -- | 10 | -- | 14 | -- | 1 | 15 | 110 |

Appendix A. Cooperator comments and remarks with cooperator ID number in parentheses. Comments without name and address were not included.

WEATHER

Bad or not very good: 6710, 6406, 3473, 5218, 9146

Good: 3844, 7940, 2959, 5864, 1755

Too warm: 3505, 9683

Cool: 6975, 0349, 0422, 9714, 3609, 8299, 1390, 4731

Rain: 9283, 4465, 8299

GOBBLING

Very little/ not as much: 8438, 0253, 3879, 6302, 9315, 5304, 2897, 9922, 6164, 6406, 3458, 7970, 1852, 8299, 9683, 6174, 9374, 7868, 4689, 9687, 8994

Good gobbling: 0877, 2232, 1023, 9777, 0439, 6838, 3344, 8646, 8239, 7940, 0732, 9161, 0422, 3513, 2803, 4520, 9286, 6070, 3609, 2997, 2341, 7283, 9859, 2929, 9772, 7774, 8189, 7513, 4892, 4731, 1927, 8368

Did not respond or hard to call in: 7145, 9383, 5304, 3331, 8041, 5939, 7180, 5367, 7276, 8085, 0668, 8934

Gobbled on roost then not on ground: 9880, 3748, 6946, 7145

Gobbled later in season: 1906

Better gobbling earlier season: 5917, 6696, 0776, 6031, 0244, 8646, 5468, 8854

Gobbled before season: 2198

Poor/none: 0349, 3186, 3416, 8239, 7045, 4743

POPULATION

Lots of jakes: 6285, 3574, 9146

Few or no jakes: 7145, 7191, 5939, 2975

Large number of hens: 0332, 5168, 8511, 2595

Too many hens: 6243, 6429, 9664

Very few or not many hens: 9344, 6387, 3427, 9777, 6285, 5557, 6056, 7098, 2452

Population low: 2452, 7208, 8732, 2959, 5986, 6975, 2568, 6631, 5239, 9981, 7921, 9922, 7180, 3458, 6070, 7970, 1852, 8085, 3278, 6174, 3473, 5218, 2975

Population good to great: 6302, 4920, 2147, 2897, 0422, 5939, 2803, 4520, 3353, 2875, 3508, 7283, 9859, 5168, 5864, 7774, 8189, 1755, 4892, 8511, 8368

Gobblers were with hens: 3505, 2897, 7940, 8041, 7276, 1390, 2473, 2441, 8549, 5168, 7208

No groups of hens: 7145

Gobblers not strutting: 7145

Gobblers in groups: 7145, 6056

More or lots of 2 yr old birds: 0877, 3344

SURVEY RECOMMENDATIONS

Need column for Jakes seen or killed might give idea for many 2 yr old birds for next year: 0077, 6031

Should print all comments and not be selective: 0349

Should have space for each day of season: 5304

Include prior year kill by county: 7946

Have form on-line with pass code access: 8828, 0246

Partner missed should be included in daily record section: 9687

Unknown turkeys seen should be included in daily column: 9687

Add time taken to call: 9687

LIKED SEASON OR NOT

Enjoyed the season: 6157, 5850, 5593, 9536, 6838, 3344, 8646, 6302, 7940, 4920, 8084, 7827, 3331, 5557, 6031, 3513, 4520, 9286, 3458, 3353, 6070, 9984, 9072, 7283, 4550, 6029, 5864, 8189, 8920, 0455, 7513, 4892, 1755, 1927

Tough: 2232, 9880, 8041, 2422

Poor or worst: 0349, 5304, 5239, 3241, 5903

Fair: 6406

Early season was excellent: 5561

Late season was fair: 5561

THANK YOU

Thanks Gary Norman for good work: 6975, 2337, 5186, 9536, 3331, 9161, 1627, 5337, 0776, 6031, 1645, 2738, 4340, 6946, 2592, 9851, 0246

Thanks for survey: 8646, 0349, 5196, 0776, 1645, 3353, 0332, 8920

Thanks Gary Norman, VDGIF & NWTF: 8646, 7208

Thanks Gary Norman and VDGIF: 2568, 8239, 3458

Thanks VDGIF: 4520, 5289

Thanks and good work: 6387, 9397, 1927

Thanks Gary Norman and staff – Dr. Mosby would be proud of your work: 3574

POACHERS AND HUNTER PRESSURE

People who started hunting last 10 yrs have no respect: 8085

Not many hunters: 6429, 5339

Lots of hunting pressure or too many hunters: 8196, 9374

Too many trespassers: 6220

Other hunters interfered: 5827, 3331, 3658, 2803, 9713, 7654

Someone killed bird weekend before season, cut off spurs & beard and threw in ditch: 7921

ATV hunters are a problem: 0611

Working bird, trespasser shot it: 0776

Hunter shot a bird he knew was not close enough to kill: 7827

Young hunters need to learn hunting ethics: 2803

People have bad manners on public lands: 9713

Need more wardens: 7946, 9628, 7098, 2959

Need to provide easier way to contact wardens: 7098

Was calling turkey, truck stopped and shot at out the window with a 22, he missed: 6482

Found a 55 gal feeder, I left a note that it was illegal to bait turkeys: 4597

Need part time wardens to enforce spring hunting laws: 9083

DOGS

Free roaming dogs are a problem: 0611, 0430, 6031, 6164, 9713, 6220, 9984, 2959, 6029, 3804, 4555, 8920

Deer dogs are a problem: 3416

LENGTH OF DAY HUNTING AND SUNDAY

Yes to Sunday hunting: 6143, 0349, 5339, 3083, 2803, 6056, 3458, 3278, 6998, 4796

No to Sunday hunting: 6975, 2568, 3758, 2578, 6710, 1529, 9602, 6031, 9713, 7970, 2339, 9159, 4555, 8920

Likes all day hunting: 9628, 9714, 3278, 2997, 6998, 4135

No to all day hunting: 8718, 2568, 1649, 0349, 1529, 9602, 6406, 7970, 4465, 8300, 4555, 7445, 7208

Should be ½ hour before sunrise until 4 p.m.: 0349

Have all Saturdays as all day: 3804

Ban rifles if you keep all day: 2592

All day is too much hunting pressure: 8718

Extend hours to 1:30 the first 4 weeks: 7917

Expand all day not just the last 2 weeks: 6174, 6998, 3734, 9846, 9760

Add one week to all day: 8920

Have not seen any benefit to all day: 9161

All day should be first 2 weeks when no hens are on nest: 9397

All day hunting encourages road hunting with rifles: 6338

End 1 hour before sunset: 6031

All day should come in week earlier: 2338

Have all day the first 2 weeks: 3353, 2422

SEASON DATES

Open 1 week earlier: 9851, 9161, 7045, 7098, 9846

Open 2 weeks earlier: 3083

Begin 1 to 2 weeks earlier: 6696

Season lengths and limits OK: 6320, 6710, 6429, 2193, 1627, 9602, 6031, 3416, 0332, 5872, 9669, 4555

Need longer season west of Blue Ridge: 8196

Season should start first Saturday in April: 4559, 1529

Season too late: 7145, 3859, 6702

Season began at peak of gobbling: 4384

Start April 1 or first Saturday in April: 3344

Start first of April: 3804

Comes in too early and out too early West of Blue Ridge: 9315

Cut season to 3 weeks: 9628

Have a 4 week Spring season, 2 weeks ½ day and 2 weeks all day: 6406

Start last week in March and end last week in April: 2198

Open last 2 weeks in March: 4788

Open earlier and close earlier: 3353, 2975

FALL SEASON

Shorten: 6631, 0244, 2339, 2959

Close turkey season during deer season: 7098

Keep Fall season with dogs: 4499

Close Fall season in Dickenson and Buchanan Counties: 9687

Need longer Fall season in Buchanan County: 3083

Close Fall season until population increases: 1852

Fall season comes in too early: 7970

LIMITS AND LICENSE

Limit is good: 2568, 6320, 6710, 6429, 2193, 0332, 4555

Should not kill jakes in spring: 2578

Should not kill jakes: 5339

Cut limit back to 2: 6975, 2337, 2578, 9708, 4520, 7098, 5289, 2339, 8602, 2441, 7028, 8732

Limit should be 2 in spring and 1 in fall: 8718

Three birds are too many: 2960

Reduce to 2 birds in Spring: 0985

Should only kill hens in the Fall: 0985

Need to kill more hens in Fall: 6429

Limit should be 1 bird in Fall and 1 gobbler in Spring: 9628

Reduce limit: 8085

Need county by county bag limit: 8732

Tenants should buy license: 0472

Should be \$15 fee to hunt spring turkeys: 8718

Need more tags: 6157

Likes being able to take others after getting limit: 5355

New tagging system allows illegal hunters to kill over the limit: 6951

Should have Fall hen tag to manage population: 5853

WEAPONS

Do not allow rifles in spring: 6143, 8438, 8718, 3427, 1649, 2578, 9851, 6338, 5339, 9981, 9708, 4644, 4952, 8239, 2960, 7045, 0332, 9735, 5321, 8300, 4333, 4455, 6373, 7028, 8586, 8964, 8920, 1755, 8511

No rifles allowed for hunting turkeys: 9160, 6975, 3034, 2337, 0349, 2193, 1529, 7946, 8828, 4520, 1645, 3458, 6951, 0852, 6069, 5289, 3734, 6029, 4555, 4791, 9851

Rifles should be allowed: 5593, 6056, 6289, 4745, 2339, 2050

Do not allow shot larger than size 4: 3458

No rifles or muzzleloaders: 2568

Shotguns or bows only to hunt turkeys: 3437

EXPERIENCES

Jake shot had 3 beards: 0472

Saw hen with beard: 1171, 6406

Saw hen chase deer: 4499

Saw coyote run deer: 4187

Lots of coyotes: 2337, 9880, 0430, 1171, 5557, 2198, 6056, 8299, 9024, 6946, 4892, 5614, 9760

Coyote interfered: 3058, 4689, 6010

Coyotes are taking a toll of turkeys and deer in Grayson County: 2217

Coyote took a jake I shot and ran off with it: 0256

Called in bobcat: 5355

Saw a bobcat: 6702

Hearing less grouse: 2337

Eagle landed on geese and 2 gobblers but left in a hurry, great show: 1451

Saw groundhog 20 feet up a tree: 9851

Heard 2 bobcats fighting: 1645

Bobcat stalked turkey: 6429

Watched bald eagle feed young in the nest: 3748

Cows interfered: 8920

Saw bear & cubs: 3316, 7921, 3437, 9851

Heard bear: 6946

Killed coyote that attacked decoys: 8239

Called in possum to 5 yards: 9851

Lots of predators: 0430, 2959

Lots of cats: 3574

OPINIONS

Hens are nesting later: 8549

Turkeys are on private lands not federal: 6143

Should have campaign to encourage deer hunters not to take pot shots at turkeys: 7305

First year I never got on a bird off of roost: 5608

Release or transplant more turkeys: 3859, 6975, 9397, 0455

I don't have to kill birds to have a good day: 6387

Should not be allowed to shoot turkeys off roost: 3427

Not many birds in Rockingham County: 6320

Clear cuts are good for turkeys: 6429

Everyone should join NWTF: 0349

Should kill every coyote seen: 0349

Best gobbling will be after season goes out: 3186

WMA's should be stocked with more turkeys or limit to permit only during gobbler season: 5339

Alternate spring every other year in Western part of state, consider zones and adjacent season and limits based on reported kills per zone: 3264

Excellent mast crop: 1627

No check cards at local station had to drive a long way: 5196

Start Fall season on Saturday: 6031

Need more public lands: 2803

Start program for turkey hunters like fishing program, master, expert etc: 6164

Would like to know how clear cutting is good for turkeys: 1645

Keep forest gates closed: 1645, 5289

Should take less turkeys off National Forest to help rebound population: 5468

Found hen dead in woods covered with leaves, next day gone and bobcat tracks seen: 3748

Should consider adult gobbler only season like Mississippi for adult hunters: 4340

Development in Prince William county is wiping out turkey hunting: 1339

Wildlife does not like sludge used as fertilizer on farmland: 2959

Successful hunter should wear orange or carry turkey in orange hunter bag: 7028

Clear cutting and development is a problem: 4555

Have bow hunting times in a few WMA's: 0246

Should not be allowed to bait or feed: 4791

Do not allow decoys: 6429, 6951

YOUTH DAY

Make youth day all day: 5339, 2997

Youth day good idea: 7946, 8920

Make youth day two Saturday's: 9851

Start program to get kids involved: 2339

Need more youth days and should be all day: 5239

Should have more early days: 9687

Allow decoys only for bow hunters and filming: 1344

Extend for 1 full week or 6 days: 6280

NESTING

May 8 saw hen with 10 poults: 8161

Flushed hens off nests, 9 and 18 eggs: 5045

April 22 flushed hen off nest, 13 eggs: 3990

Hens on nest by April 25: 5468

May 6 hen with poults: 4455

Nest with 12 eggs: 8964